

34. Pluteni čep liva napetroleju. Koliki je dio volumena čepa uronjen u petrolej ako gustoća pluta iznosi $0.2 \cdot 10^3 \text{ kg/m}^3$, a gustoća petroleja $0.8 \cdot 10^3 \text{ kg/m}^3$?
 A. 0.4 B. 0.35 C. 0.3 D. 0.25 E. 0.2

$$V_p (\text{volumen pluta}) = V$$

$$\rho_p (\text{gustoća pluta}) = 0,2 \cdot 10^3 \text{ kg/m}^3$$

$$\rho_t (\text{gustoća petroleja}) = 0,8 \cdot 10^3 \text{ kg/m}^3$$

$$V_u (\text{volumen uronjenog dijela čepa}) = ?$$

$$G = U$$

$$V \cdot \rho_p \cdot g = V_u \cdot \rho_p \cdot g \quad / : (g \cdot \rho_t)$$

$$V_u = \frac{V \cdot \rho_p}{\rho_t} = \frac{V \cdot 0,2 \cdot 10^3 \text{ kg/m}^3}{0,8 \cdot 10^3 \text{ kg/m}^3}$$

$$V_u = 0,25 V$$